

ABSTRACT OF THE DISCLOSURE

A spinal fixation device and method including at least one longitudinal rod mounted substantially parallel to the axis of the spine and having a plurality of stem clamps 5 adjustably mounted to the longitudinal rod. Each stem clamp has a stem extending outwardly therefrom with the diameter of the stem being identical to the diameter of the longitudinal rod. A plurality of C-clamps are provided and are mounted to the stems and to the longitudinal rods. Each C-clamp includes 10 a female-tapered through-passage for matingly engaging a pedicle screw. A plurality of innovative pedicle screws are used to simultaneously anchor the C-clamps to the bone and to the respective stem and longitudinal rod. The pedicle screws are configured with a recess formed therein having threads 15 therein for threadedly engaging a set screw. The pedicle screw includes a male-tapered head for frictionally engaging the corresponding female-tapered through-hole formed in the C-clamp to form a morse taper locking fit. The C-clamp also provides a clamping action for connecting the C-clamp to the 20 stems and the longitudinal rod. A second longitudinal rod can also be used to create the spinal implant construct and be coupled to the first longitudinal rod through a plurality of cross-link plates.

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